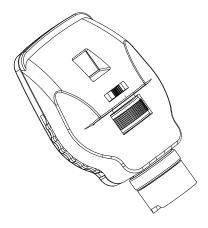
# 3.5V Coaxial Ophthalmoscope User's Guide



Thank you for purchasing the 3.5V coaxial ophthalmoscope. To prevent damage to the 3.5V coaxial ophthalmoscope or injury to yourself or to others, read the following safety precaution in their entirety before using this device. Keep these safety instructions where all those who use the device will read them.



**Attention**. Read user's guide for cautions and instructions for operating.

## **Warnings and Cautions**

Warning: This product must not be used in the presence of flammable gases.

in fluids.

Warning: This product should not be immersed

Warning: Use 3.5V Coaxial Ophthalmoscope only with all approved 3.5V power.

Warning: Federal law restricts this device to sale or order of a physician.

#### 1. Part list

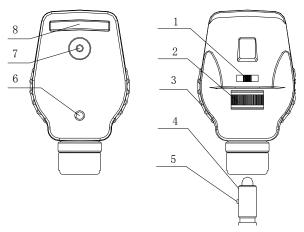


Fig. 1

- 1. Polarizing filter / red-free filter switch;
- 2. Aperture selection dial;
- 3. Diopters selection disc;
- 4. Bulb;
- 5. Dowel pin of bulb;
- 6. Illuminated Diopters indicator;
- 7. Peep hole;
- 8. Rubber brow rest;

#### 2. Operating Instructions

- a) Connect the 3.5V Coaxial Ophthalmoscope to the power.
- b) For examination of the right eye, sit or stand at the patient's right side.
- Select "0" on the illuminated lens disc of the ophthalmoscope and start with the small aperture.
- d) Take the ophthalmoscope in the right hand and hold it vertically in front of your own right eye with the light beam directed toward the patient and place your right index finger on the edge of the lens dial so that you will be able to change lenses easily if necessary.
- e) Dim room lights. Instruct the patient to look straight ahead at a distant object.
- f) Position the ophthalmoscope about 6 inches (15 cm) in front and slightly to the right (25°) of the patient and direct the light beam into the pupil. A red "reflex" should appear as you look through the pupil.
- g) Rest your left hand on the patient's forehead and hold the upper lid of the eye near the eyelashes with the thumb. While the patient is fixating on the specified object, keep the "reflex" in view and slowly move toward the patient. The optic disc should come into view when you are about 1 to 2 inches (3-5 cm) from the patient. If it is not focused clearly, rotate lenses with your index finger until the optic disc is as clearly visible as possible. The hyperopic, or

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far-sighted, eye requires more "plus" (green numbers) lenses for clear focus of the fundus; the myopic, or nearsighted, eye requires minus" (red numbers) lenses for clear focus.

- h) Now examine the disc for clarity of outline, color, elevation and condition of the vessels. Follow each vessel as far to the periphery as you can. To locate the macula, focus on the disc, then move the light approximately 2 disc diameters temporally. You may also have the patient look at the light of the ophthalmoscope, which will automatically place the macula in full view. Look for abnormalities in the macula area. To examine the extreme periphery, instruct the patient to:
  - Look up for examination of the superior retina
  - Look down for examination of the inferior retina
  - Look temporally for examination of the temporal retina
  - Look nasally for examination of the nasal retina.
     This routine will reveal almost any abnormality that occurs in the fundus.
- To examine the left eye, repeat the procedure outlined above but hold the ophthalmoscope in red-free filter facilitates viewing of the center of the macula.

### 3. Maintenance

#### 3.1 Replacing the illumination bulb

Turn off the main power switch, remove the 3.5V coaxial cphthalmoscop from the power . grasp end of bulb and pull out. Insert replacement bulb, Push bulb in firmly.

The specification of bulb for the 3.5V Coaxial Ophthalmoscop is  $3.5\mathrm{V}/2.7\mathrm{W}$  .





Fig.2

#### 3.2 Cleaning

The cleaning of the 3.5V Coaxial Ophthalmoscope is easily accomplished by wiping the external surface with a cloth dampened with a mild detergent and water solution, or a 70% isopropyl alcohol, or a 10% bleach solution (by volume). Do not immerse.

NOTE: Solution entering the assembly could damage internal components. Use caution to ensure cloth is not saturated with solution.



**Caution:** The 3.5V Coaxial Ophthalmoscope should never be placed in municipal waste.

### 4. Technical Specifications

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Optical Specification			
Diopter		0D, ±1D, ±2D, ±3D, ±4D, ±5D, ±6D,±7D, ±8D, ±9D, ±10D, +12D, ±15D, ±20D,-25D,+40D	
Aperture		Large aperture, small aperture, Micro aperture, Slit aperture, Cobalt blue aperture, Fixation aperture.	
Filter		Red free filter / Polarizing filter	
Bulb		3.5 V 2.7 W	
Operation mode		Intermittent, On-time should not exceed 2 mins with Off-time not less than 5 mins	
Environment requirements			
Operation	Environment Temperature		+10 °C+35 °C
	Relative Humidity		30%75%
	Atmospheric Pressure		700 hPa1060 hPa
Shipping	Common Conveyance		
Storage	Environment Temperature		-40 °C+55 °C
	Relative Humidity		10%90%
	Atmospheric Pressure		500 hPa1060 hPa